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09/985,937	11/06/2001	Thomas Nosker	POLY 2	4212

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EXAMINER

LE, MARK T

ART UNIT	PAPER NUMBER
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3617

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/985,937  
Filing Date: November 06, 2001  
Appellant(s): NOSKER ET AL.

Paper No. 17

**MAILED**

OCT 30 2003

**GROUP 3600**

Brion Heaney  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 29, 2003.

A statement identifying the real party in interest is contained in the brief.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

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**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 1, 3, 4, 8, 9, 13-20, and 27-34 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,916,932	NOSKER et al	6-1999
1,297,828	GARBER	3-1919
2,051,619	Reis	8-1936

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Garber (US 1,297,828).**

Garber, Figure 2, shows rails 7 attached to at least one railroad tie 9,11. The structure of Garber inherently requires the step of attaching rails 7 to tie 9,11 as broadly recited in amended claims 24-25. Regarding the structural limitations of apparatus claim 1, they are not considered to be patentably significant because they do not contribute or add any substance to the instant claimed step to define the method claim over the prior art.

**Claims 1, 3-4, 8-9, 13-20, 24-25, and 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nosker (US 5,916,932) in view of Reis (US 2,051,619).**

Nosker discloses a polymeric railroad tie similar to that recited in the instant claims, except that it does not include an arrangement of concave shapes as recited in the instant claims.

Applicant should consider concave shapes 9 of Reis. Regarding the claimed variations of dimensions/sizes and shapes of the concave shapes, note that Reis has already provided a teaching of concaved shapes in the form of truncated shape recesses 9 on a longitudinal side of a tie to prevent creeping of the tie. However, as to the specific dimensions/sizes and shapes of the instant claimed gripping recesses, they are merely matters of obvious minor variations of the dimensions or shapes of the recesses of Reis. Accordingly, in absent of evidences that such minor variations are critical to the tie structure of Reis, one skilled in the art would not have found such minor variations as being patentably distinct from the structure of Reis, as such minor variations may be resulted merely from the availability of tools/equipments for forming the gripping recesses in the ties.

In view of Reis, it would have been obvious to skilled in the art to provide an arrangement of concave shapes on a longitudinal side of the tie of Nosker, in a manner similar to that taught by Reis, so as to enhance the tie's resistance to sliding. Regarding the claimed variations of dimensions and shapes of the gripping recesses, note that as a matter of common sense, it would have been obvious to one skilled in the art to form the gripping recesses in the ties of Nosker with any dimension/shape variation within ranges of dimensions/shapes bounded by the general teaching of using gripping recesses of Reis so as to achieve expected advantages thereof, e.g. allowing

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greater flexibility in manufacturing processes; wherein, such variations may be resulted merely from the availability of tools/equipments for forming the gripping recesses in the ties. Note also the guidelines for treatments of obvious changes in sizes and shapes, in MPEP 2144.04, IV(A),(B).

Regarding the claimed components of the mixture and the percentage weight of each component, it is the examiner's position that as a matter of common sense, it would have been obvious to one skilled in the art to form the railroad tie of Nosker et al from a mixture of known materials having known characteristics so as to achieve the expected combination of advantages of such known materials; and as to the claimed percentages of the components of the mixture, it would have been obvious to one skilled in the art to select the percentages of the components of the mixtures because it is merely a matter of routine engineering to choose the percentages of mixture of the components in relative to the desired or expected contributing effects of each of said components.

**(11) Response to Argument**

Regarding Appellant's argument to the ground of rejection for claim 24,25, under 35 USC 102 as being anticipated by Garber, note that claims 24 and 25 are clearly stated as method claims, and each of which defines a single step of attaching rails to at least one railroad tie; and Garber, Figures 2 and 4, shows rails 7 attached to at least one tie 9,11; therefore, Garber clearly meets the single method step defined by claims 24 and 25. As to the claimed structural improvements of the railroad tie comprising structural features of the railroad tie in claim 1, they are not deemed to contribute or add

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any substance to the step of the method claim to define the claimed method over Garber.

Regarding Appellant's argument that Reis does not make any suggestion of using gripping recesses in polymeric ties, it is noted; however, on the other hand, Reis does not suggest that his gripping recesses can only be used with concrete ties. As a matter of common sense, such gripping recesses taught by Reis clearly would provide better grips to ties regardless of the types of materials used to make the ties. The degrees of gripping may be different from material to material; however, the enhanced gripping effect resulted from gripping recesses, similar to that of Reis, would be inherently achieved with any type of materials. Therefore, applicant's argument directed to the relative weights between concrete ties and polymeric ties to remove the inherently benefits of using said gripping recesses, similar to that of Reis, on polymeric ties are not deemed to be relevant.

Regarding Appellant's arguments directed to the variations of sizes and shapes of the recesses, it is agreed that the patent drawings are normally not made to scale, and these drawings are generally provided to only show the general concepts rather than the exact sizes or shapes that would normally required for manufacturing; and when such general concepts are to be applied to actual structures, one skilled in the art is presumed or expected to have the common senses to choose sizes and shapes in the ranges of variations of sizes and shapes that are expected to be within the bound of such general concepts or teachings of the reference so as to achieve the expected advantages thereof. Accordingly, the level of skills or common senses of one skilled in

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the art cannot be ignored when reading the teaching or general concept of using the gripping recesses of Reis, and one skilled in the art would have been expected to apply the teaching of Reis in actual railroad ties by choosing sizes and shapes for such gripping recesses from the ranges of variations of sizes and shapes that are within the bound of the teaching of Reis so as to enhance the gripping effects of the ties. In the instant case, the particular sizes and shapes of the instant claimed invention are deemed to be equivalent to or within the bound of the general teaching of Reis because Appellant has not shown any evidence of criticalities or unexpected results from the instant claimed variations of sizes and shapes, that would not otherwise have been expected from the general teaching of Reis. Appellant's arguments are not deemed to be persuasive because Appellant fails to account for the expected level of skill of one skilled in the art in the patentability determinations.

Regarding Appellant's Rule 132 Declaration, filed on May 29, 2003, it has been considered; however, it is not considered to be relevant to the ground of rejection on the combination Nosker and Reis; wherein, the combination suggests gripping recesses that are different from the gripping protrusions of the prior art described in the Declaration. On the other hand, it is noted that the Declaration further supports the fact that gripping recesses, such as that of Reis, offer better advantages over gripping protrusions shown in the attachments to the Declaration, i.e. gripping recesses cause less stress concentrations as comparing to gripping protrusions; therefore, the Declaration is considered to further support the motivation for using gripping recesses,



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such as that of Reis, on railroad ties so as to reduce stress concentrations in the railroad ties.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,




Mark T. Le  
Primary Examiner  
Art Unit 3617

mle

October 24, 2003

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